CLAIMS

Sub B2

1. A method of making a wall of a liquid crystal cell, comprising imparting a property to a layer of a material on the wall, said property being that liquid crystal molecules placed on the material on the wall in use of the cell adopt a preferred alignment,

the method comprising exposing the material to unpolarised or circularly polarised radiation from an oblique direction,

wherein the said property further includes imparting a preferred tilt as well as a preferred azimuthal alignment to such liquid crystal molecules.

2. A method according to Claim 1, wherein the irradiation energy (measured normal to the radiation) is less than 2 J/cm^2.

3. A method according to Claim 1 or 2, wherein the radiation is ultraviolet.

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4. A method according to any preceding claim, wherein said preferred alignment is such that the longitudinal axis of the liquid crystal molecules is in the plane including the normal to the layer and the direction of the radiation.

5. A method according to any preceding claim, wherein the imparted preferred tilt exceeds 45° to the plane of the layer.

6. A method according to Claim 5, wherein the imparted preferred tilt exceeds 75°.

7. A method according to any preceding claim, wherein the said material is substantially homeotropically orienting.

8. A method according to any preceding claim, wherein the angle of incidence φ of the radiation to the normal to the layer is within the range $5° \leq \varphi < 70°$.

9. A method according to any preceding claim, wherein the angle of incidence $\varphi > 45°$.

10. A method according to any preceding claim, wherein the material is cross-linked by the irradiation.

11. A method according to any preceding claim, wherein the radiation to which the material is exposed is zonewise patterned, whereby, in said imparted property, the preferred alignment is zonewise patterned.

12. A method according to claim 11, wherein, between the source of the radiation and the material, there is interposed a microelement array.

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13. A liquid crystal cell wall bearing a layer of material, the layer having the property that liquid crystal molecules placed on the layer adopt a preferred alignment, to which layer the property was imparted by a method according to any preceding claim.

14. A liquid crystal cell of which at least one wall in contact with liquid crystal material is according to claim 13.

15. A liquid crystal cell according to claim 14, which is vertically aligned nematic.

16. A liquid crystal cell according to claim 14, which is hybrid aligned nematic.

add A3

add B5